UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/393,768	09/10/1999	EROL BASTURK	239603PL-011	3272

7590 04/17/2003

Pillsbury Winthrop LLP
1600 Tysons Boulevard
McLean, VA 22102

EXAMINER
FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
2663	6

DATE MAILED: 04/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/393,768	BASTURK ET AL.	
	Examiner	Art Unit	
	Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 September 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. **Claims 1-34** as originally filed are still in consideration for this application.

2. Examiner **withdraws** the obviousness rejection to *Cohen* in view of *Eng* for Office action filed 11/14/02 in reference to line item 1-2. Examiner also does **withdraws** the obviousness rejection to *Cohen* in view of *Eng* and in further view of *Kodialan* for Office action filed 11/14/02 in reference to line item 3. Rejections are withdrawn since applicant admits that their invention is not ATM (at least page 3, line 2 for Applicant's Remarks dated 2/24/03). As such, examiner has replaced the withdrawn rejection(s) with a new rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-34** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,363,319 to *Hsu* in view of "Evolution of Multiprotocol Label Switching" to *Viswanthan et al.* ("*Viswanathan*").

As to **claims 1 and 18-20**, *Hsu* discloses a method and apparatus for selecting a route for a flow from a plurality of network paths connecting a source to a destination [Abstract]. More specifically, *Hsu* discloses constraint-based route selection using biased cost. Shown in figure 1a are routers using a centralized biased cost route selector

(BCRS) and shown in figure 2 are routers using a distributed biased cost route selector (BCRS) using label edge routers (LERs) [column 3, lines 32-38]. With respect to a first and second node, examiner notes figure 3 illustrating a directed graph index [column 5, lines 25-67; column 6, lines 1-8]. Examiner notes that MPLS is known in the art for packet forwarding [column 1, lines 15-16].

The *Hsu* reference is silent or deficient to the limitation of replacing the tag (i.e., MPLS label) of the packet with the updated tag to give an updated packet. Examiner notes that it would have been obvious to a skilled artisan to replace the tag (i.e., MPLS label) when routing/switching the packet in the MPLS network. Examiner notes that further support or motivation comes from *Viswanathan* which discloses that a packet is "labeled" by either encoding the label in the data link layer or network layer header, or encapsulating the packet with a header specifically for MPLS [page 167, bottom right-hand column].

As both reference disclose routing packets in general, and more specifically routing packets using MPLS, examiner notes a strong motivation to combine the subject matter as a whole for both references.

As to **claim 2**, both references disclose transporting the packet to a destination node, using a reasonable but broad interpretation, where applicant defines destination node as either a terminal or a router on page 8, lines 10-11 of applicant's specification. For example, as shown in figure 2 of *Viswanathan* and on page 168 bottom right-hand column.

As to **claim 3**, *Hsu* discloses routing an MPLS packet in general over a directed graph network. Again, *Hsu* is deficient or silent to how a label is changed at an intermediate node. Examiner notes that it would have been obvious to a skilled artisan prior to applicant's invention to change a label at an intermediate node. Again, *Viswanathan* provides additional support by disclosing that a label can be swapped at intermediate (i.e., subsequent) nodes [page 167, bottom right-hand column].

As to **claim 4**, see the same reasoning behind the rejection to claim 2.

As to **claims 5 and 33**, see the same reasoning behind the rejection for claim 1 (and as shown in figure 3 of *Hsu*).

As to **claims 6, 7, and 21-23**, *Viswanathan* discloses using the label as an index into a table which specifies a new outgoing label and next hop [page 167, bottom right hand column]. This process is used throughout the network. In addition, *Hsu* discloses using a loop free algorithm (i.e., acyclic as defined by applicant on page 5, lines 3-4).

As to **claims 8 and 24**, *Viswanathan* discloses using a SHIM header as shown in figure 1 which comprises a label of at least 20 bits.

As to **claims 9 and 25**, both reference disclose using an updating function throughout the network.

As to **claims 10-11 and 26-27**, *Hsu* discloses biased biased costs as well as static costs (i.e., local preferences) in determining a route [e.g., column 6, lines 29-67].

As to **claims 12 and 28**, see the rejection for claim 9.

As to **claims 13-14 and 29-30**, see the rejection for claims 10-11.

As to **claims 15-16 and 31-32**, *Viswanathan* discloses the general concept of using a general packet between source to destination which may occur between one or more intermediate nodes. *Hsu* provides additional support by disclosing a flow of a packet (i.e. FIFO packet flow).

As to **claims 17 and 34**, *Viswanathan* discloses matching variable bits for a label using a broad but reasonable interpretation of hash.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

Derrick W. Ferris
Examiner
Art Unit 2663

DWF DWF
April 14, 2003

MELVIN MARCELO
PRIMARY EXAMINER